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Cosmological Friedman models with the charged vacuum

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Abstract

Exact solutions corresponding to the stable charged vacuum are obtained for cosmological Friedman models with a charged scalar field. It is demonstrated that the presence of a massive vector field for the vacuum changes the law of expansion at early stages of evolution of the universe. A method for construction of solutions with the charged vacuum for an O(N) invariant scalar multiplet is given. © 1986 Plenum Publishing Corporation.

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